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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,574	04/11/2001	David Alan Dage	197-1291CON	1739
7590	06/21/2004		EXAMINER	
John L. James P. O. Box 2025 Marietta, GA 30061-2025			PENDLETON, BRIAN T	
			ART UNIT	PAPER NUMBER
			2644	11
DATE MAILED: 06/21/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/832,574	DAVID ALAN DAGE 	
	Examiner	Art Unit	
	Brian T. Pendleton	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 12 April 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-3,9,11 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 21 is/are allowed.
- 6) Claim(s) 1,3,9 and 11 is/are rejected.
- 7) Claim(s) 2 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 3 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claims 1 and 9 recite the limitation "said lower portion of said rear panel" in lines 17-18. There is insufficient antecedent basis for this limitation in the claim. Examiner is determining the merits of the claims as if the limitation reads "said bottom portion of said rear panel".
4. Claim 3 recites the limitation "the frequency range of interest" in line 2. There is insufficient antecedent basis for this limitation in the claim. It appears that claim 3 should be dependent on claim 2 which recites the above limitation.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagayoshi US Patent 5,867,582. In figure 5, Nagayoshi discloses a speaker comprising transducer 1, housing 2 and a electrical connector extending from the transducer 1. The housing 2 serves as “a rigid mounting plate having an acoustical opening”. The transducer 1 reads on “a monopole driver having a high mass cone and low resonance in free air”. The transducer 1 is mounted in the housing 2 which reads on “said driver being mounted on said mounting plate with a basket of said driver fitting about said acoustical opening”. The housing 2 also serves as “a rear tub attached to said mounting plate forming an enclosure housing said monopole driver so that sound radiates from said enclosure only through said acoustical opening”. The electrical connector extending from the transducer 1 positioned in a slot flush with a rear panel of the rear tub. Nagayoshi does not disclose “a top portion of a rear panel of said rear tub being offset inward toward said mounting plate to have less depth than a bottom portion of said rear tub to thereby form a slot”. Nagayoshi discloses a slot at the bottom portion of the rear tub instead of at the top portion. The placement at the top of the rear tub provided no expected results as compared to placement at the bottom of the rear tub, therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify Nagayoshi to have the slot at the top portion for the purpose of providing an opening for electrical connections to the speaker.

7. Claims 3, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagayoshi in view of Farella. Nagayoshi disclose a speaker with a mounting plate, driver, electrical connector and rear tub. However, the reference does not teach an inductor connected in series with the driver and operating in the frequency range of 40 – 200 Hz. As one of ordinary skill in the art would have known, there were several methods for low frequency reproduction of

audio signals, including filtering using an inductor. Inductors were well known to faithfully isolate low frequencies. Farella teaches such a method having inductor 9 leading to woofer 2 for low frequency sound output. It would have been obvious to one of ordinary skill in the art at the time of invention to use an inductor, per the teachings of Farella, in the invention of Nagayoshi for the purpose of providing a high fidelity low frequency audible output. Claim 9 is met. Per claims 3 and 11, column 4 lines 22-42 of Nagayoshi disclose a frequency response in the range of 150 Hz.

Allowable Subject Matter

8. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claim 21 is allowed.

10. The following is a statement of reasons for the indication of allowable subject matter: Claim 2 recites an inductor connected in series with the monopole driver and contouring the frequency response of the monopole driver to match frequency response of a vehicle dipole speaker over a frequency range of interest. Although it was obvious to use inductors for a frequency shaping purpose, there is no disclosure nor suggestion in the prior art of record for shaping the frequency response of the speaker of Nagayoshi to match that of a vehicle dipole speaker. Regarding claim 21, the limitation of “comparing said test woofer output with output of an optimized vehicle dipole speaker and determining frequency response difference which is the loss in baffling due to speaker environment in the vehicle” is not taught nor suggested in the prior art of record. The test method involving vehicle dipole speakers is non-obvious.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (703) 305-9509. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

B.T.P.
btp